Amendments to the Specification

Please replace paragraph **[0026]** with the following rewritten paragraph:

[0026] Then, in S3, the master pressure Pm which is the present hydraulic pressure of the master cylinder 22 is detected. As in the case of the pedal stroke ST, the master pressure Pm has already been detected as the detection value obtained by the master pressure sensor 54, and has already been stored in the RAM152. The master pressure Pm is also one type of the operation state amounts of the operating member, and is used as the operating force related amount. The master pressure Pm is a relative pressure with the atmospheric pressure. The master pressure Pm is "0" when the brake pedal 20 is not depressed, and increases with an increase in the depressing amount. In step S4, the master pressure corresponding target vehicle deceleration G_{pm}* which corresponds to the detected master pressure Pm is read from the Pm-G_{pm}* map stored in the ROM 154. In the embodiment, in the Pm-G_{pm}* map, the target vehicle deceleration Gpm* increases substantially linearly with an increase in the master pressure ~~Pm.~~Pm, as shown in Fig. 6.

Please replace paragraph **[0027]** with the following rewritten paragraph:

[0027] In the embodiment, the target vehicle deceleration G* is decided as the weighting sum of G_{ST}* and G_{pm}*. In S5, the weighting coefficient α ~~which is the coefficient for weighting~~ is read from the weighting coefficient map stored in the ROM 154. As shown in FIG. 7, the weighting coefficient α is related to the master pressure corresponding vehicle target deceleration G_{pm}*. The value of the weighting coefficient α corresponding to G_{pm}* read in S4 is read from the weighting coefficient map. In the embodiment, the weighting coefficient α is a value equal to or larger than "0" and also equal to or smaller than "1", and

the value of the weighting coefficient α increases with an increased in G_{pm}*. In S6, the target vehicle deceleration G* is obtained according to the following equation.

$$G^*=\alpha\times G_{pm}^*+(1-\alpha)\times G_{ST}^*$$